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WORKMAN NYDEGGER (F/K/A WORKMAN NYDEGGER & SEELEY) 60 EAST SOUTH TEMPLE 1000 EAGLE GATE TOWER SALT LAKE CITY, UT 84111			EXAMINER FELTON, AILEEN BAKER	
			ART UNIT 3641	PAPER NUMBER

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**GROUP 3600**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/646,767  
Filing Date: November 30, 2000  
Appellant(s): GAST ET AL.

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For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 1/27/2005 appealing from the Office action mailed 1/16/2004.

*He*

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The Examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

No evidence is relied upon by the Examiner in the rejection of the claims under appeal.

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 9-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuda et al(6,149,745) in view of Yoshida et al(5,827,996).

Matsuda et al discloses a gas generating composition for use in air bags that can comprise 5-60 % of nitroguanidine, 25-90 % of oxidizer, and metal oxides (col. 3, lines 1-9). The oxidizer can comprise a mixture of strontium nitrate and iron oxide. The composition can also comprise a binder that is a sodium salt of carboxymethylcellulose. Example 11 shows the binder in the amount from 3-10 % (col. 4, line 4) and other examples show the use of 0 % binder. The surface area of the metal oxides and the particular amounts of the oxidizers are not disclosed.

Yoshida et al teaches the use of metal oxide with a surface area of at least 40 m<sup>2</sup>/g. The metal oxide can be titanium oxide.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the amounts of strontium nitrate and iron oxide within the range disclosed by Matsuda since Matsuda discloses that the oxidizers can be used as

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a mixture of two or more kinds(col. 2, lines 48-49). It would also have been obvious to vary the amount of the binder. It is well-settled that optimizing a result effective variable is well within the expected ability of a person of ordinary skill in the subject art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1955). It would have been obvious to use the titanium dioxide taught by Yoshida et al with the composition of Matsuda since Yoshida suggests that it will function to reduce the concentrations of CO and Nox.

Claims 1-4 and 9-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamato(6,190,474) in view of Yoshida et al(5,827,996).

Yamato discloses a gas generating composition for use in an air bag that comprises a mixture of oxidizers from about 20-80 %, a fuel such as nitroguanidine from 20-80 %, and a binder such as microcrystalline cellulose from 5 % or less. The oxidizer mixture can comprise strontium nitrate and iron oxide. The use of titanium oxide and the particular amounts of the oxidizers are not disclosed.

Yoshida et al teaches the use of metal oxide with a surface area of at least 40 m<sup>2</sup>/g. The metal oxide can be titanium oxide.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the amounts of strontium nitrate and iron oxide within the range disclosed by Yamato since Yamato discloses that the oxidizers can be used as a mixture of two or more kinds(col. 2, lines 48-49). It would also have been obvious to vary the amount of the binder. It is well-settled that optimizing a result effective variable is well within the expected ability of a person of ordinary skill in the subject art. In re

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Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1955). It would have been obvious to use the titanium dioxide taught by Yoshida et al with the composition of Yamato since Yoshida suggests that it will function to reduce the concentrations of CO and NOx. Since combustion of the similar composition of Yamato will result in slag formation it would be a benefit to use the titanium oxide teaching to reduce the formation of harmful CO and NOx.

#### **(10) Response to Argument**

##### ***Arguments regarding the interview on March 16, 2004***

The Examiner disagrees with Applicant's summary of the interview and disputes his quotations of the content of the interview. Any remarks, if they were made by the Examiner, are taken out of context and do not accurately reflect the Examiner's position.

##### ***Rejection of Matsuda in view of Yoshida***

Applicant's arguments are not persuasive regarding the combination of Matsuda and Yoshida. Matsuda teaches that a particulate slag trap may result in a reduced scavenging effect, the reference nonetheless teaches that it is known in the art to use particulate slag traps. One of skill in the art may choose to follow this teaching even though it may result in a reduced scavenging effect.

Regarding Applicant's arguments that Matsuda and Yoshida do not indicate that the fibers and titanium oxide are slag traps, regardless of what the particular reference calls these components, the fibers or particles are still present in the compositions. Applicant cannot remove the effects of these components merely by calling them by another name. The composition of Matsuda and Yoshida are both used a gas

generating agents in air bags and one would apply the teachings of the other when attempting to create a better air bag. It is prima facie obvious to combine two compositions, each taught for the same purpose to yield a third composition for that very purpose. *In re Kerkhoven*, 205 USPQ 1069, *In re Pinten*, 173 USPQ 801, and *In re Susi*, 169 USPQ 423. The Yoshida reference teaches the use of titanium dioxide with a particular surface area, since this component is known to be used in gas generating compositions it would be obvious to use it with Matsuda since it does serve as a trap for CO and NO<sub>x</sub> and will likely trap other byproducts of the combustion of the gas generating composition. Applicant also asserts that the titanium oxide is not chemically inert, the Examiner fails to see how Applicant has modified this component to make it any different from any other titanium oxide. Thus, the titanium oxide meets the claim limitations by its mere presence in the composition.

Applicant further argues that *In re Shetty* provides a basis for the exclusion of rejections based on inherency for a 35 U.S.C. 103 rejection. Upon review of this case, the Examiner disagrees with the Applicant's conclusion. *In re Shetty* involved process claims in which a method step was an amount effective of a particular ingredient to obtain appetite suppression. This is not the issue in this case with composition claims since if the ingredient is in the composition it will have that effect. The Examiner fails to see how the Applicant has changed titanium oxide to make it inert for his purposes. Again, regardless of what Applicant wants to call this component, Applicant cannot remove its normal characteristics.

Applicant has argued that Matsuda does not disclose that the fibers are used for slag forming. Yoshida provides a teaching for the use of the titanium oxide with the composition of Matsuda and it would be obvious to use the titanium oxide with Matsuda with or without the use of the fibers disclosed by Matsuda. The titanium oxide will provide benefits to the composition, which is described fully in the rejection. The motivation to combine does not have to be the same as Applicant's motivation; they must merely be a reason why one of skill in the art would look to a particular teaching to solve a particular problem. Here, the titanium oxide is taught to decrease CO and NOx which is an important goal in the air bag art and is one of the most important problems to be solved in this area. Thus, it would be obvious to apply this teaching to another gas generating composition to obtain these important benefits.

Applicant's arguments regarding the gas phase reaction are similarly unpersuasive. This language is product by process language and refers to the formation of the oxide with high surface area. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

***Rejection of Yamato in view of Yoshida***

Applicant provides similar arguments (see arguments above to Matsuda for further clarification) for the rejection using Yamato in view of Yoshida. The teaching and reason for obviousness is that Yoshida teaches the use of the titanium oxide with a gas generating composition. Thus, the addition of the titanium will provide a benefit to the



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composition of Yamato even if, for arguments sake, this is not the same benefit addressed by the Applicant. The Examiner disagrees that the titanium oxide of Yoshida will act any differently than the one claimed in the instant invention. Regardless of what the titanium oxide is called, there is a sufficient teaching to use it in other air bag compositions. Applicant cannot remove the effects of these components merely by calling them by another name. The composition of Yamato and Yoshida are both used as gas generating agents in air bags and one would apply the teachings of the other when attempting to create a better air bag. It is prima facie obvious to combine two compositions, each taught for the same purpose to yield a third composition for that very purpose. *In re Kerkhoven*, 205 USPQ 1069, *In re Pinten*, 173 USPQ 801, and *In re Susi*, 169 USPQ 423.

Applicant's arguments regarding the gas phase reaction are similarly unpersuasive. This language is product by process language and refers to the formation of the oxide with high surface area. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

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Respectfully submitted,

  
**AILEEN FELTON**  
**PRIMARY EXAMINER**

Conferees:

Michael Carone 

Jeffrey Gellner 